

PROJECT TITLE : PILOT-PLANT OPERATIONS
PERIOD COVERED : NOVEMBER 26, 1981 - JANUARY 19, 1982
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1. MAINTENANCE AND IMPROVEMENTS IN THE EQUIPMENT IN THE
PILOT-PLANT

The maintenance of the equipment in the Pilot-Plant was carried out according to plan and was completed on January 15, 1982 (1).

In addition, with the assistance of the FTR workshop, different parts of the equipment were improved and the piping system for the closed-loop operation is now in its final position. All the equipment was cleaned and overhauled and, except for the large fermentor, is ready for further trials.

1.1. Dewatering

Our make-shift roller was installed at the outlet of the rotocell extractor. For the next LEAR trial, we will try different systems for creating the vacuum under the belt. These systems offer the possibility of re-adding the squeezed and sucked-out extract back into the fermentor.

1.2. Rotocell Extractor

During LEAR trials 12 and 13, several problems were observed with the continuous feeding system. It was examined, and a temporary solution was found by reducing the speed of the vertical conveyor which moves upwards and downwards. Nevertheless during the next shut down period of the Pilot-Plant, the system will have to be modified. Heat-exchangers were installed on two of the sections of the extractor through which the extract is pumped.

1.3. Fermentor

The fermentor was completely cleaned, overhauled and examined with the assistance of a Chemap engineer.

A first sterilization test after this maintenance period again showed a contamination of the fermentor. This time the fermentor was dismantled, cleaned and washed with a 2% formalin solution. After this treatment the fermentor, including the air system, remained sterile for about 74 hours.

A contamination was again observed after some injections of antifoam, and the antifoam sterility system is now being examined.

1.4. Centrifuge

Trials with the rented Westfalia centrifuge gave much better results than those obtained with the existing Alfa-Laval centrifuge (2). Therefore a decision was taken to purchase a Westfalia centrifuge. It arrived on January 15 and was installed.

2. PERSONNEL

A new operator started work on December 1, 1981, and has finished his training program.

3. REFERENCES

1. "Révision de l'installation-pilote, décembre 1981 - janvier 1982" report from R. Perrinjaquet, January 1982
2. "Evaluations comparatives des séparateurs centrifuges Alfa-Laval et Westfalia", report from M. Hofer, December, 1981.

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